



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Millicoma Meander
Sale 341-11-73

District: Coos

Date: February 07, 2011

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$908,706.00	\$27,081.00	\$935,787.00
		Project Work:	\$(100,349.00)
		Advertised Value:	\$835,438.00



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timber description

Location: Portions of Section 13, T23S, R11W, W.M., Coos County, Oregon.

Stand Stocking: 80%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	28	0	95
Western Hemlock / Fir	14	0	90
Alder (Red)	14	0	95

Volume by Grade	10" - 11"	12"+	2S	3P	3S	3S 12"+	4S	6" - 7"	8" - 9"	SM	Total
Douglas - Fir	0	0	2,248	112	168	84	28	0	0	168	2,808
Western Hemlock / Fir	0	0	0	0	14	0	2	0	0	0	16
Alder (Red)	32	33	0	0	0	0	0	31	12	0	108
Total	32	33	2,248	112	182	84	30	31	12	168	2,932



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comments: Pond Values Used: 4th Quarter Calendar Year 2010.

Western Redcedar and Other Cedars Stumpage Price = Pond Value
minus Logging Cost.

$\$770.22/\text{MBF} = \$935/\text{MBF} - \$164.78/\text{MBF}$

SCALING COST ALLOWANCE = $\$5.00/\text{MBF}$

FUEL COST ALLOWANCE = $\$3.00/\text{Gallon}$

HAULING COST ALLOWANCE

Hauling costs equivalent to \$700 daily truck cost.

Other Costs (with Profit & Risk to be added):

Directional Felling/Tree Jacking: $20 \text{ MBF} \times \$2/\text{MBF} = \40

Brand and Paint Logs: $2,982 \text{ MBF} \times \$1/\text{MBF} = \$2,982$

Cull sorting/Slash Piles on Landings: $3 \text{ Landings} \times \$250 = \$750$

Rig Lift Trees: $3 \text{ Lift Trees} \times \$100 = \$300$

Additional Fire Equipment: $1 \text{ Season} \times \$2,000 = \$2,000$

Safety Flaggers: $2 \text{ days} \times \$150 = \300

Slash Pile Covering: $3 \text{ landings} \times \$50 = \$150$

Tree Topping/Girdling: $25 \text{ trees} \times 100 = \$2,500$

Fish Log Stockpile: Yarding and Decking:

$54 \text{ MBF} \times \$62 = \$3,348$

Fish Log Stockpile: Special Handling:

$54 \text{ MBF} \times \$8 = \432

Ground-Based Equipment Wash: $6 \text{ hr} \times \$65 = \390

TOTAL Other Costs (with Profit & Risk to be added) = $\$13,192$

Other Costs (No Profit & Risk added):

None.



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logging conditions

combination#: 1 Douglas - Fir 92.00%
Western Hemlock / Fir 92.00%
Alder (Red) 92.00%

yarding distance: Long (1,500 ft) **downhill yarding:** No
logging system: Cable: Large Tower >=70 **Process:** Manual Delimiting
tree size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF
loads / day: 12.0 **bd. ft / load:** 4,800
cost / mbf: \$64.12

machines: Log Loader (A)
Tower Yarder (Large)

combination#: 2 Douglas - Fir 8.00%
Western Hemlock / Fir 8.00%
Alder (Red) 8.00%

yarding distance: Medium (800 ft) **downhill yarding:** Yes
logging system: Cable: Large Tower >=70 **Process:** Manual Delimiting
tree size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF
loads / day: 12.0 **bd. ft / load:** 4,800
cost / mbf: \$80.15

machines: Log Loader (A)
Tower Yarder (Large)



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logging costs

Operating Seasons:	2.00	Profit Risk:	15.00%
Project Costs:	\$100,349.00	Other Costs (P/R):	\$13,192.00
Slash Disposal:	\$0.00	Other Costs:	\$0.00

Miles of Road

Road Maintenance: \$0.00

Dirt	Rock (Contractor)	Rock (State)	Paved
0.0	2.0	0.0	0.0

Hauling Costs

Species	\$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	\$0.00	2.0	5.0
Western Hemlock / Fir	\$0.00	2.0	4.5
Alder (Red)	\$0.00	2.0	3.5



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Local Pond Values

Date	Specie	Grade	Value
2/7/11	Douglas - Fir	3P	\$650.00
2/7/11	Douglas - Fir	SM	\$545.00
2/7/11	Douglas - Fir	2S	\$485.00
2/7/11	Douglas - Fir	3S	\$445.00
2/7/11	Douglas - Fir	3S 12"+	\$320.00
2/7/11	Douglas - Fir	4S	\$420.00
2/7/11	Western Hemlock / Fir	3S	\$390.00
2/7/11	Western Hemlock / Fir	4S	\$375.00
2/7/11	Alder (Red)	8" - 9"	\$430.00
2/7/11	Alder (Red)	10" - 11"	\$480.00
2/7/11	Alder (Red)	12"+	\$550.00
2/7/11	Alder (Red)	6" - 7"	\$310.00



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logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
\$65.40	\$2.14	\$2.99	\$63.91	\$4.50	\$20.84	\$0.00	\$5.00	\$0.00	\$164.78
Western Hemlock / Fir									
\$65.40	\$2.24	\$2.99	\$74.39	\$4.50	\$22.43	\$0.00	\$5.00	\$0.00	\$176.95
Alder (Red)									
\$65.40	\$2.14	\$2.99	\$91.31	\$4.50	\$24.95	\$0.00	\$5.00	\$0.00	\$196.29

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$487.19	\$322.41	\$0.00
Western Hemlock / Fir	\$0.00	\$388.12	\$211.17	\$0.00
Alder (Red)	\$0.00	\$447.04	\$250.75	\$0.00



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summary

Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00
Western Hemlock / Fir	0	\$0.00	\$0.00
Alder (Red)	0	\$0.00	\$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	2,808	\$322.41	\$905,327.28
Western Hemlock / Fir	16	\$211.17	\$3,378.72
Alder (Red)	108	\$250.75	\$27,081.00

Gross Timber Sale Value

Recovery: \$935,787.00

Prepared by: Dax Strubb

Phone: 541-267-1759

**SUMMARY OF CONSTRUCTION COST
Millicoma Meander**

Project 1A: Road and Landing Construction

Points: A to B Length: 175' Type: n/a

Excavator	<u>40</u>	hrs at	<u>\$125.00</u>	per hour	<u>\$5,000.00</u>
Cat time - road construction, waste area	<u>40</u>	hrs at	<u>\$120.00</u>	per hour	<u>\$4,800.00</u>
Dump Truck - haul waste to Point C (approx. 4125 yds)	<u>40</u>	hrs at	<u>\$95.00</u>	per hour	<u>\$3,800.00</u>
Drill & Shoot	<u>10</u>	hrs at	<u>\$300.00</u>	per hour	<u>\$3,000.00</u>
Grader	<u>1</u>	hrs at	<u>\$75.00</u>	per hour	<u>\$75.00</u>
Laborer	<u>40</u>	hrs at	<u>\$35.00</u>	per hour	<u>\$1,400.00</u>
Excavator - remove existing pipe	<u>2</u>	hrs at	<u>\$125.00</u>	per hour	<u>\$250.00</u>
18" Culvert Installation at Point A	<u>40</u>	feet at	<u>\$17.00</u>	per foot	<u>\$680.00</u>
Culvert Bands	<u>1</u>	bands at	<u>\$19.00</u>	per band	<u>\$19.00</u>
2 1/2" rock for after removal/installation	<u>18</u>	yds at	<u>\$23.80</u>	per yard	<u>\$428.40</u>

Total Project 1A: \$19,453.00

Project 1B: Landing Construction

Point: D Length: n/a Type: n/a

Excavator	<u>5</u>	hrs at	<u>\$125.00</u>	per hour	<u>\$625.00</u>
Cat time	<u>5</u>	hrs at	<u>\$120.00</u>	per hour	<u>\$600.00</u>
Laborer	<u>5</u>	hrs at	<u>\$35.00</u>	per hour	<u>\$175.00</u>

Total Project 1B: \$1,400.00

Project 1C: Landing Construction

Point: E Length: n/a Type: n/a

Excavator	<u>50</u>	hrs at	<u>\$125.00</u>	per hour	<u>\$6,250.00</u>
Cat time - road construction, waste area	<u>50</u>	hrs at	<u>\$120.00</u>	per hour	<u>\$6,000.00</u>
Dump Truck - haul waste to Point C (approx. 4800 yds, 0.4 mi RT)	<u>50</u>	hrs at	<u>\$95.00</u>	per hour	<u>\$4,750.00</u>
Drill & Shoot	<u>20</u>	hrs at	<u>\$300.00</u>	per hour	<u>\$6,000.00</u>
Laborer	<u>50</u>	hrs at	<u>\$35.00</u>	per hour	<u>\$1,750.00</u>

Total Project 1C: \$24,750.00

Move-in

Equipment	Miles	hrs/RT	Lowboy Rate/hr	Total
Excavator	40	5	\$95.00	\$475.00
Cat	40	5	\$95.00	\$475.00
Drill & Comp	40	5	\$95.00	\$475.00
Grader	40	4	\$95.00	\$380.00
Dump Truck	40	4	\$95.00	\$380.00

Total Move-in: \$2,185.00

Project 1 Total \$47,788.00

**SUMMARY OF CONSTRUCTION COST
Millicoma Meander**

Project 2: Road Improvement

Points: C to D Length: 720' Type: 14' no ditch

Excavator	<u>5</u>	hrs at	<u>\$125.00</u>	per hour	<u>\$625.00</u>
Cat time	<u>5</u>	hrs at	<u>\$120.00</u>	per hour	<u>\$600.00</u>
Grader time	<u>3</u>	hrs at	<u>\$75.00</u>	per hour	<u>\$225.00</u>
Laborer	<u>5</u>	hrs at	<u>\$35.00</u>	per hour	<u>\$175.00</u>

Project 2 Total \$1,625.00

Project 3: Post-Sale Cleanup

Points: 9300 road in sale area

Excavator - clean-up 9300 rd after logging	<u>5</u>	hrs at	<u>\$125.00</u>	per hour	<u>\$625.00</u>
Dump Truck - haul debris	<u>5</u>	hrs at	<u>\$120.00</u>	per hour	<u>\$600.00</u>
Grader time	<u>2</u>	hrs at	<u>\$75.00</u>	per hour	<u>\$150.00</u>

Move-in

Equipment	Miles	hrs	Lowboy Rate/hr	Total
Excavator	40	4	\$95.00	\$380.00
Dump Truck	40	3	\$95.00	\$285.00
Grader	40	4	\$95.00	\$380.00

Total Move-in \$1,045.00

Project 3 Total \$2,420.00

Project 4A: Road Surfacing

Points: F to G Length: 12,575'
(8000 road from 2000 rd junction to 7100 road junction)

Rock Type: 1 1/2" - 0" Hard Crushed Quarry
Depth: 3" un-compacted depth
Volume: 12 yds/STA
Turnouts: 9 turnouts at 10 yds each

Grader time for preparation	<u>4</u>	hrs at	<u>\$75.00</u>	per hour	<u>\$300.00</u>
1 1/2"-0" Rock (2.4 hr RT)	<u>1602</u>	yards at	<u>\$26.63</u>	per yd	<u>\$42,661.26</u>
Processing (Grader)	<u>1602</u>	yards at	<u>\$1.00</u>	per yd	<u>\$1,602.00</u>

Move-in

Equipment	Miles	hrs	Lowboy Rate/hr	Total
Grader	40	4	\$95.00	\$380.00

Total Move-in \$380.00

Total Project 4A \$44,944.00

SUMMARY OF CONSTRUCTION COST
Millicoma Meander

Project 4B: Road Surfacing (Maintenance rock)

Points: 9300 road (between Points C and E)

2 1/2" rock for maintenance on 9300 road after construction and hauling (2.6 hr RT)	<u>144</u>	yds at	<u>\$23.80</u>	per yard	<u>\$3,427.20</u>
Processing (Grader)	<u>144</u>	yards at	<u>\$1.00</u>	per yd	<u>\$144.00</u>

Total Project 4B \$3,572.00

Project 4 Total \$48,516.00

Total Project Costs \$100,349.00

TIMBER SALE SUMMARY

Millicoma Meander

1. **Type of sale:** Final harvest; Recovery, Sealed Bid.
2. **Boundary Lines:** This timber sale is comprised of one sale area. Sale boundaries are marked on the ground with "Timber Sale Boundary" posters, red paint, and red flagging at locations shown on the Exhibit A.
3. **Revenue Distribution:** 100% CSL, 100% Coos County.
4. **Sale Acreage:** The total sale area is 49 net acres. Buffer areas are posted outside the sale area and are not included in the net acreage calculation. The acreage was determined by electronic digitizing using 2009 digital orthophotography, 2008 Lidar and ArcMap 9.3 GIS software program.
5. **Volume by Species, Fund, and County:** See attached table.
6. **Grade by Percent:** (All areas)

Species	3 Peeler	Special Mill	2 Saw (12"+)	3 Saw (11"-10")	3 Saw Large Diameter	4 Saw/Camp (9"-6")	Utility
Douglas-fir	4%	6%	80%	6%	3%	1%	----
Red Alder*	-----	-----	31%	30%	-----	39%	----
Western Hemlock	-----	-----	-----	90%	-----	10%	----

* Red alder is represented by size class rather than grade.

7. **Cruise:** The sale was variable plot cruised using the Big BAF cruise design. Each plot consisted of both a full 40 BAF count plot and a full 360 BAF measure plot. The 40 BAF count plot was used to tally the number of trees by species to determine the stand basal area. The 360 BAF plot was then used to select Douglas-fir to cruise as measure trees.

The sale area is approximately 49 acres and has 53 nested plots and 41 measure trees that were cruised for diameter, total height, grade and defect. The cruise design was analyzed using the SuperACE cruising program. Logs were merchandised at a length of 40 feet to compile total cruise volume.

A. Cruise Summary Data:

Diameter	Top Diameter	Form Point	Form Factor	CV%	SE%
DBH	Total Height	Conifer: 16' Hardwood: 16'	Estimated or measured on all trees	63.6	8.71

B. Stand Summary:

Species	DBH	Trees per Acre	Basal Area (ft ² /ac)	BF per acre
Douglas-fir	28	53	222	57,300
Red Alder	14	20	23	2,200
Western Hemlock	14	3	3	300

C. Green Tree Retention Summary: Green trees were posted both inside and outside of the timber sale areas. There are single GTR trees throughout the timber sale area.

8. **Timber Description:** The timber is comprised of 118 to 127 year-old Douglas-fir with a minor component of red alder and scattered understory hemlock. Conifers range from 80 to 210 feet tall while hardwoods are about 40 to 80 feet.

9. **Topography:** The sale area ranges from 10 percent to over 90 percent slope. The southeast area has a large component of gentle slopes. The northwest area is dominated by steep slopes.

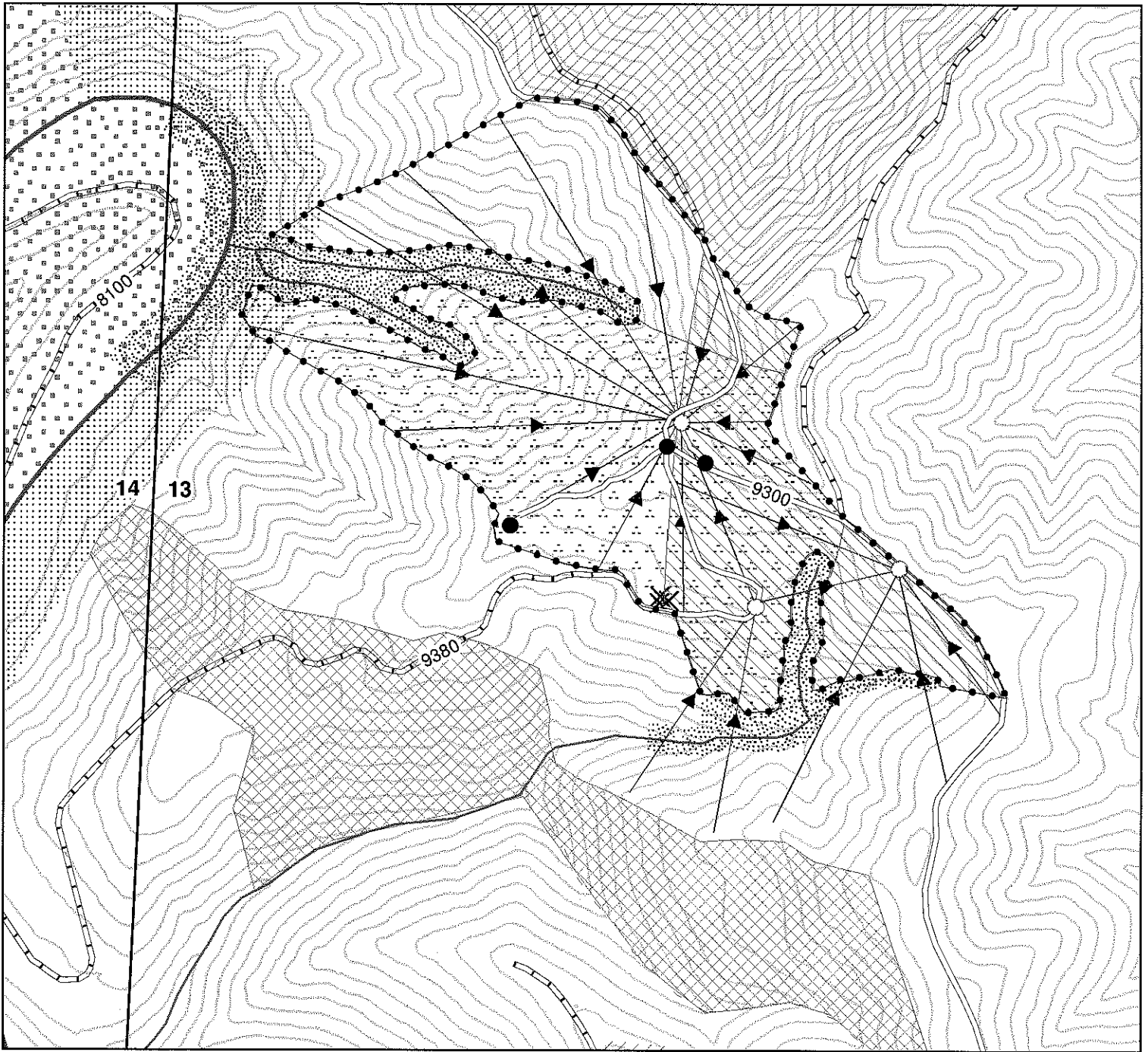
10. **Logging Method:** The sale will be cable logged mostly uphill with single-end suspension over the units; full suspension will be required over designated streams and RMAs. A motorized carriage will be required to obtain the necessary suspension. Tailtrees may need to be placed for yarding the sale area as approved in the operations plan. There will be some opportunity for ground based operations as well.

11. **Access:** From Lakeside, travel FR 4000 road (Benson Ridge), veer right at FR 4900. Proceed 1/2 mile to FR 8000 road, turn left (East) onto FR 8000 and travel to FR 9300 (approx. 2 miles). Travel up FR 9300 road almost 1 1/2 mile to FR 9380.

12. **Projects:**

Project No. 1: Road and Landing Construction

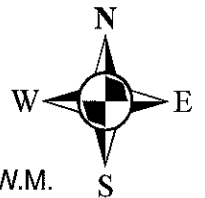
Project No. 2: Road and Landing Improvement



	Timber Sale Boundary	Project Points		Landing
	Yarding Area - Cable		Road Point	
	Single Tree	Roads		State Maintained
	Reforestation Area			Purchaser Maintained
	Chainsaw Restricted Area			New Road Construction
	Felling Restricted Area	Streams		Type F Perennial
	Stream Buffers			Type N Perennial
	Marbled Murrelet Seasonally Restricted Area			Type N Seasonal
	Northern Spotted Owl Seasonally Restricted Area			Unclassified
	Marbled Murrelet Management Area			

LOGGING PLAN

Millicoma Meander
Timber Sale No. 341-11-73



Portion of Section 13, T23S, R11W, W.M.
Coos County, OR
Approximately 49 Net Acres
40 foot contours

1:6,000



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